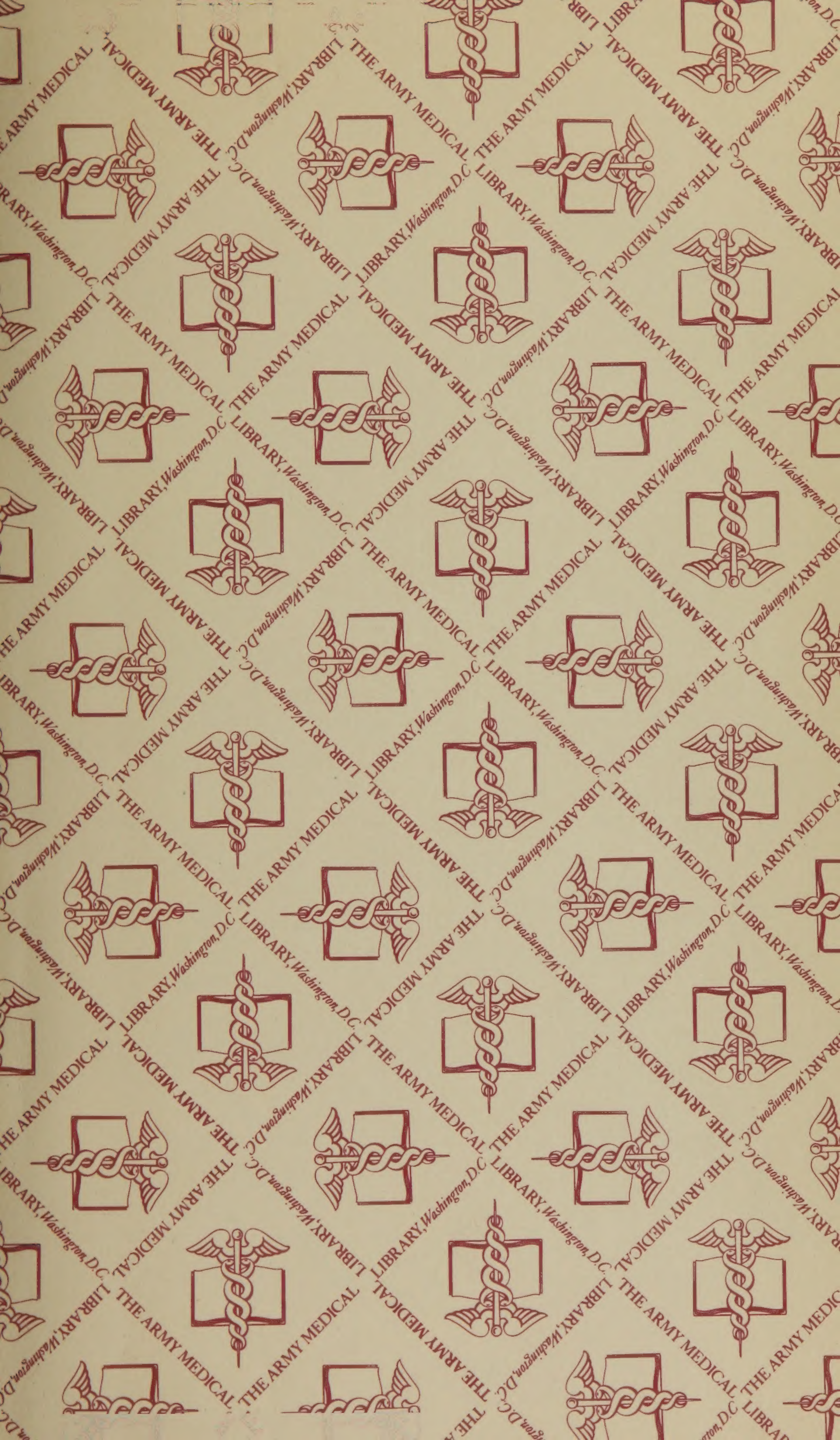


WZ
100
M3152R
1870

ROBERTSON

REVIEW OF THE REPORT CONCERNING THE
LAST ILLNESS OF DR. ALDEN MARCH



"LO! THE CRANES OF IBYCUS!"

A

REVIEW OF THE REPORT

CONCERNING THE LAST ILLNESS OF

DR. ALDEN MARCH,

WITH

*CRITICAL COMMENTS ON THE IMPROPER MEDICAL
TREATMENT OF THE CASE, AND STRICTURES ON
PITIFUL DEVICES FOR CONCEALMENT.*

BY

✓
CHARLES A. ROBERTSON, A. M., M. D.,

OPHTHALMIC AND AURAL SURGEON OF THE ALBANY HOSPITAL, AND SURGEON IN CHARGE
OF DISEASES OF THE EYE AT ST. PETER'S HOSPITAL, ALBANY, N. Y.

Surgeon
LIBRARY
22151
[REPRINTED FROM THE N. Y. MEDICAL JOURNAL, JANUARY, 1870.]
Washington

NEW YORK:

D. APPLETON AND COMPANY,

90, 92 & 94 GRAND STREET.

1870.

✓

WIZ

100

M3152R

1870

REVIEW OF THE REPORT OF "LAST ILLNESS OF DR. ALDEN MARCH."

IN the October issue of the *NEW YORK MEDICAL JOURNAL* appeared a statement¹ concerning the last illness of Dr. Alden March, which purports to have been prepared "for the information of the many friends and acquaintances" of the deceased. A reprint of this article has been liberally distributed among the students of the Albany Medical College, and elsewhere.

It is the purpose of the writer to examine the article critically, both in regard to the nature of the information it imparts, and as to its value as a contribution to medical science. It challenges attention on account of numerous peculiar features in the notions entertained respecting physiology, pathology, therapeutics, and facts.

The medical attendants of the patient were three in number, of whom Dr. James H. Armsby, elsewhere said to have been "nearly related" to Dr. March, is named first, as having chief charge of the case. Dr. Armsby, the attending physician, was seconded by Drs. James McNaughton and James P. Boyd as physicians in counsel. Dr. March, it is stated, "was occasionally visited" by other physicians, but whether they concurred or disagreed with the physicians in charge, or only called as friends, is not stated. Incidentally, however, it is made to appear that they did not concur. But, dismissing these considerations, let us endeavor to learn what ailed Dr. March,

¹ This statement is reprinted in full for the reader's information, as an Appendix to this paper.

what opinion was entertained by his medical attendants, and what was done intelligently for his relief.

Referring to this document, we learn that Dr. March was in the "seventy-fourth year of his age." He had been to New Orleans, returned, resumed "business with his usual alacrity;" had a "very fatiguing ride in the country, exposed to rain and cold." "Went to his bed quite ill with fever, restlessness, pain over the region of the bladder, great thirst, and constant desire to void urine." At night took cathartic. Next day "kept quiet, took diluents and small doses of opium during the day." "Next night had a warm bath, followed by Dover's powder." "In a few days" (how many not stated) "he was out again, and attending to business." "On the 6th day of June he was in his pew" at church, suffering great distress "from his old trouble." His old trouble was an affection of the bladder and prostate gland, as we are told, on the second page, that Dr. Tully, his former partner, died of disorder in this region, and Dr. March "remarked that he had the same disease." After the attack in church, he was conveyed to the residence of his son-in-law, and "there he remained until his sufferings were ended by death." "He seemed possessed, from the first, with the idea that he had a great accumulation of feces in the rectum, and *that* after very free evacuation from the bowels." "His most troublesome symptom was pain about the neck of the bladder, and an irresistible desire to void urine every fifteen or twenty minutes." "Seldom passed more than an ounce or two at a time," and "was passing daily from two to three quarts of apparently healthy urine." It is said that Dr. March had, for several months, "voided from three to six quarts daily," as he stated. Its specific gravity, during part of his illness, was 1005; later it became 1010. "Attention was early called to a tumor occupying the lower part of the abdomen, and distinctly traceable from the *pubes* nearly to the *umbilicus*." "The tumor was regarded as a distended and thickened bladder." "There was not, at any time, much difference of opinion regarding the nature of the case, or the proper treatment to be pursued." Exactly what the diagnosis was is not stated, and the reader is left to draw his own inferences.

Treatment.—At first, five grains of calomel and one of opium, as a cathartic, the first night; next day rest, diluent drinks, and small doses of opium. Under a distinct heading, we are told that “the treatment was *such as is usually pursued in such cases*, warm baths, fomentations, diluent drinks, anodyne injections, anodyne suppositories introduced into the rectum, etc.” Every attention requisite was paid to regimen and nursing, and every urgent symptom relieved as speedily as possible. The use of a catheter “was chiefly resorted to as a means of exploration,” and, therefore, does not properly come under the head of treatment. Still, it is convenient to note it here. The catheter was passed on two occasions: the first time, it is said, “the instrument passed, without difficulty, its whole length, without entering the bladder, but bringing away clotted blood!” The second time, “a few days before his death,” the patient was chloroformed, and a “longer instrument than usual was employed.” This “was passed readily the full length of an ordinary catheter,” when it “met a firm, resisting body, and seemed to fall into a *cul-de-sac*, in which its point was fixed.” “The first attempt to introduce a catheter was made about a *fortnight* before he died;” he died *eleven* days after confinement to the house.

“*Uremic symptoms* became *more* marked in the last two days. Hiccough, delirium, and drowsiness, became more decided, his urine passed without effort, and, the last day, without apparent consciousness.” The patient died on the morning of June 17th, the eleventh day after his distress in church.

Such, in brief, is a summary of what is prepared, printed, and published, for the information of the readers of this remarkable paper.

Under the head of “*Remarks*,” a very few words of information as to *post-mortem* appearances are given, and some observations and queries are made, that are suggestive, at least, of another purpose than to enlighten those who have sought information regarding this most interesting and instructive case.

Before proceeding to analyze and estimate this paper, the reviewer will here introduce a report of the *post-mortem* examination of Dr. March, both because it has been inadequately

presented by the medical attendants themselves, and because it will throw light on a just analysis of the narration of the nature and management of the case. This report was prepared by Dr. Edward R. Hun, at the request of Dr. Armsby, prior to the publication of the article under review, and received his approbation. Its correctness is also attested by the gentlemen whose names are signed to it, and by others who were present at the autopsy.

AUTOPSY OF ALDEN MARCH.

Body well nourished. Palpation of the abdomen revealed the presence of a hard globular tumor occupying the hypogastrium.

The abdomen was laid open by a crucial incision. The abdominal walls contained a considerable layer of adipose tissue and the muscles presented a healthy color. Upon turning back the flaps, the bladder was found to be distended, and occupied the hypogastric region from the pubes to the umbilicus, the fundus being a little to the left of the median line. There were some old adhesions between the omental and vesical peritonæum. A trocar was introduced into the anterior portion of the bladder, and rather more than a quart of slightly-turbid urine was drawn off. A longitudinal incision having been made along its anterior wall, the internal surface of the bladder was brought into view, and was found to present the reticulated appearance usually met with in cases where obstruction has been offered to the free flow of urine, but there was no abnormal thickening of the walls of the organ. A deep depression existed behind the prostate, owing to the enormous hypertrophy of this gland. A catheter was now introduced through the urethra into the bladder without difficulty. The bladder, with the prostate and a part of the membranous portion of the urethra, was removed from the body in a mass, and the prostatic enlargement was now well shown, and appeared mainly due to hypertrophy of the two lateral lobes.

A catheter was passed from the bladder into the urethra until it emerged externally, and then the incision already made along the anterior wall of the bladder was prolonged downward through the upper wall of the urethra, the catheter serving as a guide for the knife. This having been done, it was found that, although the prostatic portion of the urethra was laid open, yet the membranous portion remained uncut. It was also observed that the connective tissue lying anterior to the prostate gland and neck of the bladder was stained and infiltrated with blood, although there was no evidence of any urinary infiltration. The middle lobe of the prostate was enlarged in such a manner as to form a *cul-de-sac* just below the vesical orifice of the urethra. The kidneys were rather larger than usual, and contained several cysts filled with a straw-colored fluid, which cysts were situated in the cortical substance and projected beyond the surface of the

The words : *this paper* [page 7th], in the sentence following the report of the autopsy, have seemed equivocal to some persons not familiar with medicine. It is hardly necessary to say that the reference, as the context shows, is to the *paper* under review, and not to the valuable report of the autopsy by Dr. E. R. Hun.



organ. The pelves of both kidneys were enlarged, but whatever fluid they may have contained, escaped unnoticed when the ureters were divided. The renal tissue appeared somewhat congested, but was otherwise normal, and subsequent microscopic examination showed no alteration of the Malpighian bodies or uriniferous tubules. The other abdominal viscera presented nothing abnormal.

The head and thorax were not examined.

(Signed)

EDWARD R. HUN,
J. R. BOULWARE,
FRANCIS BURDICK,
CHARLES H. PORTER.

It seems almost incredible that so many errors of judgment could be fallen into, so many mistakes in practice committed, as appear in this paper. It is unaccountable that a paper, so lacking in clearness, so abundant in mistiness, should profess to issue for the purpose of information. The case was, professionally, an interesting one, and Dr. March was personally a man held in high consideration. It is well known that, in this locality, great curiosity was felt to learn all the features of his illness, and it is no secret that, after his death, the animadversions respecting his treatment were censorious and severe. After waiting patiently more than three full months to ascertain the particulars and circumstances of the case, there appears this paper, in all important matters not less vague and equivocal than the responses of the Delphic oracle.

Considering well, however, what is unavoidably said, and fathoming carefully what is thereby inevitably implied, we ask, after studying this paper, what was the matter with Dr. March? Interrogate the symptoms, examine his medical history, investigate his condition, as narrated, and it must seem that an error could scarcely be made by a physician of ordinary intelligence. Here is an old man, subject to retention or incontinence of urine for more than ten years, so as to require a urinal for his *vade mecum*, suddenly seized, after exposure to cold and wet, with distress in the urinary organs and inability to evacuate his bladder naturally, and, being a surgeon, he tries to obtain relief by means of a catheter. He is unable to accomplish the introduction of the instrument, partly on account of pain, and partly because of the inconvenience of manipulating on one's own person. The troublesome symp-

toms multiply, the tumor detected in the hypogastrium augments, pain and desire to pass water persistently increase, a sense of impaction in the rectum distresses him, and from time to time, with forcible effort, a little water is expelled—what explanation occurs to a mind medically trained? What other diagnosis than retention of urine can be suggested by such symptoms in a patient with such a history?

The first prompting and effort for help, manifested by the patient himself trying to introduce a catheter, proclaims that, while his mind was clear, he recognized the nature of his ailment, and the proper means of relief. Why did not his medical attendants also recognize it, and resort to the same means? They answer that they did, but “the parts were very tender,” and use of the catheter “was delayed at his request,” and also that “there seemed no urgent necessity for it!” Numerically the reasons abound! The first reason is simply puerile. Because a process is painful, is a physician to refrain from it, and leave his patient to struggle on, and die, even? The second reason has but little weight. It was natural and proper, unquestionably, to respect the wish of the patient, especially as he was a medical man, but here, as it always does, the responsibility rested with the professional attendants, and both duty to the patient and manliness on their part required them to assume the jurisdiction. The third reason, if valid, was sufficient, and to adduce the other reasons throws a doubt in the reader’s mind upon their conviction of its validity. They tell us that, while they were procrastinating, “means were being resorted to, in the mean time, to allay irritation so as to facilitate the passage of an instrument, *if* necessary!” that is, if Dr. March should ever happen, in their estimation, to have *retention* of urine, they meant to do something! This, too, after we are told on the previous page that they had observed a tumor in the abdomen, which they regarded as a “*distended* and thickened bladder!” Just why they regarded it as “thickened” (before the autopsy) is not quite clear from any data produced. We accept the word *distended*, however, and ask what distended it but urine? How it happened to become so, we readily understand. “Retention of urine, dependent upon enlargement of the prostate gland, is liable to be pro-

duced by the slightest exposure to cold.”—(“Gross’s Surgery,” vol. ii., p. 741.)

The opinion of the medical attendants, if we may judge from the treatment, would, however, seem to have been that inflammation existed, and that upon allaying this by appropriate means the patient would be able naturally, or by art, to empty the distended viscus. They felt no urgency to heed the monition, *obsta principiis*, “for he was passing,” they say, “daily from two to three quarts of apparently healthy urine,” enough “to prevent, it was supposed, uræmic poisoning from its [urea] retention in the bladder.” If inflammation existed, where was the evidence? Acute cystitis is a very uncommon disease, and generally terminates within a week. Its main symptoms are a feeling of weight and pain in the hypogastric region, augmented by movement and by pressure. Pain is also felt in the iliac and sacro-lumbar regions; great deal of febrile disturbance—not “moderate fever in the daytime!” urine voided drop by drop—not “an ounce or two at a time!” At the neck of the bladder there is a *scalding* sensation, when the urine is emitted *guttatim* by straining. The urine is of increased specific gravity—not 1005! high colored, and contains blood and pus—not the “color of pale sherry,” not “apparently healthy” urine.—(See Da Costa “On Medical Diagnosis.”) This, then, could not have been inflammation. The symptoms did not indicate it.

We must, then, return to the diagnosis—*retention of urine*, owing to enlargement of the prostate gland. Even then he was deemed safe by his attendants, for he was passing, they assert, more than the standard quantity of urine, and was emitting a small quantity every fifteen or twenty minutes. Still it was no criterion that retention, fatally-dangerous retention, did not exist, because he was passing water from time to time. An old Frenchman was brought to the Middlesex Hospital, supposed by his friends to have dropsy. Being interrogated, he said he formerly had some *stoppage*, but now “passed plenty of water.” His bladder, however, was found *distended*, a catheter was introduced with some difficulty, and several quarts of urine drawn off! Too late, though; an error of diagnosis had been committed by his friends, a mistake in

treatment by his physicians, and he died.—(See “Watson’s Practice,” p. 744.) Said Dr. March, according to the paper under review, “I pass quite water enough, why give me unnecessary pain?” The pain was not inflicted, although he “was surrounded by sympathizing friends, tender nurses, and experienced and attentive medical advisers,” and, like the old Frenchman, he died too. The chief difference is, that one had his water drawn off before death, the other after; but, in both cases, too late to be of any other service than to establish a fact in diagnosis, and add one more regret to the list for what “might have been!”

Perhaps Dr. March was passing more than a normal quantity of water, yet we must not judge his case relatively to others, but to himself. He had been passing before his illness the enormous quantity, varying from three to six quarts! at least, as we are told, and now, while tormented by “excessive thirst,” and drinking a “large amount [quantity] of ice-water,” he had fallen off to between two to three quarts! What had become of the difference? The difference between two to three quarts and three to six quarts is one to three quarts! Was this difference (one to three quarts) accumulating in the distended bladder? If any considerable portion of it was collecting there, was not this an appalling consideration? Was this a time to delay and dally with sedatives and anodynes, to pour diluent fluids into a patient, who was telling as plainly as figures can speak, that he had in him already more fluid than the urinary organs could relieve him of? Was this an indication that a catheter should be used “chiefly” for the purpose of “exploration” in order to ascertain how long the urethra was, and how large and hard the prostate was? This was a novel use of the instrument, surely, but a most unwarrantable thing to do for such purpose “chiefly,” when the patient was supposed to be suffering from inflammation—declared by “his most troublesome symptom,” “pain about the neck of the bladder.”

Perhaps the difference, above noted, of one to three quarts, was supposed to be suppressed, as we see, under the head of *Remarks*, something said of “ischuria renalis!” and so the retention was still insignificant in the minds of Dr. Armsby and the others. Ischuria renalis, when, instead of the normal

quantity of about one quart per diem, a patient is secreting from two to three quarts of urine daily! Ischuria renalis, *suppression* of secretion by the kidneys; are the gentlemen serious?

Dismissing this, however, let us revert again to the figures. He was passing as we are told “an ounce or two of urine every fifteen or twenty minutes.” This is sufficiently lax and indefinite. A difference of one hundred per cent. in measurement, and twenty-five per cent. in time, when a patient’s safety, his life even, depends on accuracy of observation, is serious. But let us strike an average of quantity of urine voided and of intervals of its emission, and we shall find that *four* quarts was the quantity of urine necessarily evacuated in twenty-four hours. It follows then, either that he was not passing so much as “an ounce or two” at a time, or that he voided a good deal more than between two to three quarts a day. The dilemma is unfortunate, for it discovers a sad inappreciation of the vital importance of precision. The whole statement is palpably based on sheer conjecture, and it is evident that no actual measurement was observed, either as to the quantity passed from time to time, or the aggregate quantity in twenty-four hours. It seems much more probable that a *drachm* or two at a time, as rumored, would have been a closer guess than an ounce or two, since it is what is more likely to occur in cases of partial retention.

The diagnosis of retention of urine, owing to enlargement of the prostate gland, as a predisposing cause, and exposure to cold, as an exciting cause, being unmistakably established by the data furnished in the account of the case, let us examine the treatment.

“The treatment was such as is usually pursued in *such* cases,” we are gravely told. It consisted of “warm baths, diluent drinks, anodyne injections, anodyne suppositories introduced into the rectum, etc.” (whatever that may be). “Small doses of opium during the day” are also mentioned. By whom such treatment is “*usually* pursued in such cases” is not stated. Most assuredly it is not by the general profession. If it is usually done by the signers of the paper under consideration, no one will presume to contest their claim to *originality*,

at least. Diluent drinks, large quantities of ice-water, when a man is in *agony* because the organ, which is soon to be called on to receive these fluids, is already stretched to dreadful tension with excess of water! Anodynes, opiates solid and fluid, *per orem anumque!* Nature, with agonizing voice, is crying piteously for relief—what is to be done, afford the relief, or stifle the cry? *Stifle the cry!* says the logic of this *usual* treatment! It was done; and the “spirit *quietly* departed.” Had this been a crying child, it would not have been surprising, had a hireling, and not over-discerning nurse, administered a soothing anodyne, instead of affording nourishment to the hungry infant, to allay the craving of its stomach and hush its cry; but we hardly expected such treatment to be practised and defended by medical men.

It is very clear, from the account, that the patient was in danger of uræmic poisoning. His bladder was distended from pubes to umbilicus. However, he was passing urine “in sufficient quantity daily to prevent, it was supposed, uræmic poisoning from its *retention* in the *bladder*.” Yet he was already “occasionally delirious, and exhibited nervous symptoms;” “but these were attributed to the free use of anodynes.” The thoughtful reader is more likely to regard them as the escort of that procession of “uræmic symptoms” which “became more marked in the last two days.”

We read in this paper: “It is not probable that uræmia is often caused by mere retention of urine in the bladder, even when a very small quantity is voided in twenty-four hours.” Why, uræmia not only “not often” but *never* occurs directly from urine retained in the bladder! The mucous membrane lining the bladder is not an absorbing surface.¹ If the urine is absolutely retained, it may become putrid, and the urea, combining during the decomposition with two atoms of water, is converted into carbonate of ammonia, and renders the urine alkaline; but the urea, of which the blood has once been depurated by the kidneys and in solution, passed through the ureters into the bladder as a constituent of the urine, is not

¹ See article, “Can Medicinal Articles be absorbed by the Mucous Membrane of the Bladder?”—*Medical Times and Gazette*, April 10, 1869. Consult, also, on this point, an article in May (1869) number of this JOURNAL.

again taken into the circulation, to poison the blood by its presence. If the bladder be surcharged, the conduits from the kidneys, that is, the ureters, are necessarily overfilled, and the pelves of the kidneys charged to repletion with urine that cannot be transmitted. Of course, their functions must be seriously disturbed, and, if the impediment—that is, the urine in the bladder—be not removed, all action of the kidneys will be suspended, the effete azotized product called urea will not be eliminated from the blood, but will accumulate: disorder of the nervous centres occurs, “nervous symptoms,” analogous to those produced by many narcotic poisons (“anodynes”), soon exhibit themselves, and, if the secretion is not restored, the patient dies comatose. The spirit *quietly* departs, in a stupor deep and painless enough, without need of “small doses of opium during the day,” or “anodyne injections” and “anodyne suppositories,” to increase and intensify that stupor.

Will it be urged, in vindication of the unaccountable method displayed in managing this case, that an attempt was made to evacuate the bladder, but it was found impossible to introduce a catheter? It is strange that the attempt was made at all, if it was not necessary to draw off the urine; if it was necessary, it is more than strange—it is wicked, if not criminal—that all further attempts were finally abandoned, and the patient left to his fate. Oh, but, we are told, “uræmic symptoms were not so urgent as to warrant puncturing the bladder.” Indeed! Uræmia is not such a gentle, tractable affair, that it may be trusted or slighted until it becomes *urgent*. The patient is like a vessel drifting in a storm toward a lee-shore. Far away the sailor faintly discerns the scarcely-perceptible land, which a glimmer, through a rift in the clouds, shows for a moment. “Land on the lee-bow!” cries the lookout. The captain, in fancied security, has been “laying-to” his craft, with only sail enough to keep her steady, while the gale sends blast after blast howling among spars and shrouds. The billows sweep the decks from stem to quarter, and to attempt to carry sail in such a storm would seem madness to one not understanding the perils which that kindly beam of light had disclosed. Drifting passively must inevitably insure the de-

struction of all on the lee-shore. To spread sail may seem like a challenge to the mad elements, and may result in carrying away the masts, which already bend like whip-sticks before the tempest, or the vessel may be driven beneath the inexorable waters. Both alternatives are dangerous, but the skilful mariner speedily makes a choice. Quickly the necessary close-reefed sails are spread, and, keeping her course close to the wind, the imperilled ship reaches the broad, open main, safe from one danger, at least. The first symptoms of uræmia are as urgent as the first sight of a lee-shore, and demand as much decision and promptitude. If the catheter cannot be introduced, puncture of the bladder becomes an imperative necessity. The objection urged is that puncture through the rectum, or above the pubes, might jeopardize life by urinary infiltration. If these considerations obtained so weightily as to preponderate against interference in these regions, then interpubic puncture could have been made, against which the objection raised does not lie. But there was no more danger of urinary infiltration in this case than in any other case of retention. The argument made is not against the applicability of puncture in this case, but against the operation of puncture altogether. It either was or was not a proper thing to do. If the former, no timidity should have stood in the way of its performance; if the latter, then all talk about danger of urinary infiltration is irrelevant and trifling.

We are perfectly astounded at the self-stultification and the disregard of physiology and pathology exhibited by the remarks and queries in the last three sentences of this luminous paper. We read: "In the examination that was made of the urine, the proportion of urea contained in it was below the average;" but was that caused by the absorption of that constituent after it got into the bladder? Is it not more probable that it was *retained* in the blood by the diseased action of the kidney, as in ischuria renalis? Such, at all events, was the view taken by those in charge of this case, and made them disinclined to an operation (puncture) of such "doubtful utility." The fact in physiology, that the lining of the bladder is not an absorbing surface, has already been considered. Let us look for the stultification. Turning back three pages to Professor

Mosher's test of the urine, we find mention made of the low specific gravity, the absence of diabetic sugar, of albumen, of the slightly acid reaction, and of the fact that there was “urea in a *given* quantity less than the average, but, as he passed more urine than the average daily, the *whole* quantity of urea voided might be equal to the average” (and we may add, might exceed the average). Forgetting all this, in their precipitate zeal to vindicate themselves, Dr. Armsby and his associates in the case go on to assert that they did not resort to a trocar to puncture the bladder and relieve the patient from his distress and peril, because, according to their view, the *apparent* deficiency of urea, where no *actual* deficiency existed, was owing to the urea being *retained* (the italics are their own) as in ischuria renalis; that is, on one page we are told that in twenty-four hours a normal quantity of urea was secreted, and on the other we are told that the reason why no instrumental aid was attempted was, because in twenty-four hours a normal quantity of urea was not secreted! This is very much like the logic of the person who returned the cracked vessel to the lender, and defended himself by saying that it was cracked when he got it, that he never borrowed the vessel, and that it was whole when he returned it! Then, too, it is made to appear that the reason why the urine was not drawn off by art, was not owing to the difficulty in introducing a catheter, not to the fact that he was passing plenty of water and there was no need of it, not to the danger of urinary infiltration from puncture, but because of “diseased action of the kidney as in ischuria renalis.” So it seems it was disease of the kidneys, after all, that was under treatment, and *very bad* treatment, too, for that! It seems a little tardy, to be sure, to speak of it, and it is very singular that entire absence of evidence of renal trouble should have existed.

According to Professor Mosher's tests, the urine was perfectly healthy. A low specific gravity and excess of water existed, but where diluent drinks were freely given this was natural, and to be expected, unless there were “diseased action of the kidney, as in ischuria renalis.” It is an occasional individual peculiarity of certain persons to void an excessive

quantity of water, and some habitually pass very dilute urine.¹

Again, he was drinking diluents freely, and the observation is made by Bischoff that the ingestion of a large quantity of water diminishes the excretion of urea. Then, too, the patient was an old man, and interstitial changes were lessened in activity, and in a corresponding degree the elimination of urea was less rapid.² Therefore, it were no evidence that this patient had disease of the kidneys, even if it were shown that the quantity of urea was absolutely instead of relatively diminished.

We come now to the report of the autopsy prepared by Dr. Hun. He speaks of the kidneys as presenting a healthy appearance on inspection, with exception of being somewhat congested and having on the surface several cysts projecting from the cortical substance. The existence of cysts on the surface of the kidneys is unimportant in this connection, for they are not supposed to exert any influence to pervert the action of the organ. The paper says "the kidneys exhibited evidence of disease and former inflammation;" but what evidence and what kind of disease, is left in the mist and unstated—except that adhesions and cysts are mentioned. It would satisfy scientific curiosity to know to what the kidneys could be *adherent* except to the fat in which they were embedded! (Dr. March weighed over one hundred and ninety pounds.) Dr. Hun says that the pelves of both kidneys were distended, as is usual in cases of retention. The Malpighian bodies and uriniferous tubules he declares to have been found healthy on subsequent examination with the microscope. The other statement is that "in the tubular part there was *some evidence* of disease," but, with the same indefiniteness that characterizes all essential parts of this remarkable paper, no information is vouchsafed as to the nature of the evidence, or of the disease. This is hardly what we should expect in a printed paper claiming the attention and respect of scientific men. However, the fact that the kidneys secreted abundantly, and that no morbid product whatever existed in the urine, is conclusive that any pathological

¹ BEALE, "On Urinary Diseases," p. 80.

² Analyses, by LECANU, *Journal de Pharmacie*, tome xxv.

change discovered in the kidneys must have been exceedingly trivial, and had nothing whatever to do with the death of the patient.

“The bladder was found enlarged and much changed in its structure,” is the loose generality of one statement. Dr. Hun says that it contained more than a quart of turbid urine; the precise quantity over, he informs the writer, was not measured. The internal surface presented the usual appearance found when obstruction has long prevented the free flow of urine. As the bladder has been preserved, it may be examined, it is presumed, by any one curious to see it, although changed by the preservative fluid. The observer will find the middle coat, perhaps, slightly thickened, and the muscular fibres as distinct as the fleshy columns of the heart. The prostate gland, as both Dr. Hun and Dr. Armsby state, is largely hypertrophied, measuring fully twice the normal diameter in every direction. The middle lobe, isthmus, or transverse process, as it is variously termed, does not appear to be developed like the lateral lobes, however, but it is carried upward, and put on stretch, as a thick membrane by the enlargement of the lateral lobes. Query: Was this the obstacle to the introduction of the catheter encountered by the medical attendants?

At the autopsy a catheter was introduced into the bladder by the gentleman who performed the *sectio cadaveris*. He used an ordinary catheter, which he found of sufficient length to penetrate the bladder; as he stated to the reviewer. He said that, upon well depressing the handle of the instrument, its beak passed over the obstacle and entered the cavity of the viscus. In his paper, Dr. Armsby says: “The instrument passed readily the whole length of an ordinary catheter, until it met a firm, resisting body and seemed to fall into a *cul-de-sac*, in which its point was fixed. It was repeatedly withdrawn, and its point carried along the anterior wall of the prostatic urethra, but the handle of the catheter could not be depressed,” etc. Now, the *cul-de-sac* is on the *posterior* wall of the urethra, and not the anterior at all, so that it is impossible that this was the *cul-de-sac* in which its point engaged. Where, then, was it? Dr. Hun tells us, in his report. In removal of

the bladder, the prostate gland and a part of the membranous urethra were also removed. After removal of the bladder, which had been laid open by anterior section, a catheter was passed from the anterior of the organ into the urethra, until it emerged externally, and the incision in the anterior wall of the bladder was prolonged downward on the catheter as a director through the upper wall of the urethra. It was then found that, although the prostatic portion of the urethra was laid open, yet the membranous portion beyond the point of the catheter remained uncut! This appearance is well shown in the photographs *first* taken. It was also observed that the connective tissue, lying anterior to the prostate gland and neck of the bladder, was stained and infiltrated with blood! Here, then, was the *cul-de-sac*! Here was where "the blood coagulated in the catheter" was drawn! This extravasated blood was not a *post-mortem* stain. It was not on a cut surface, but *infiltrated* into the connective tissue. How does this strike the professional reader? There is but one explanation. A false passage had been made during life by thrusting the point of the catheter through the anterior wall of the membranous urethra. The point had perhaps found a "*cul-de-sac*" somewhere after passing under the pubic arch, the full length of an ordinary catheter, but where the reviewer will not venture to guess, for there has been already too much guessing exhibited in this case. Dr. Hun informs us of the particulars of this *post-mortem* catheterization. This paper does not allude to it! Far be it from the reviewer to question the veracity of any one; but it is miraculous that a catheter which was long enough to traverse the urethra and enter the bladder of Dr. March *after* death, was not long enough to do this, as the learned professor and counsel say, *before* death! Perhaps this notable silence as to the *post-mortem* use of the catheter was not observed for concealment; the fact may have been forgotten, or regarded as insignificant—perhaps so! Let us examine still further into facts before pronouncing a verdict.

On the 18th of June, the day after the decease of the patient, a stereograph of the interior of the bladder and prostate gland was taken by Haines, of Albany. After this, the specimen was kept in some antiseptic fluid until the 25th of

July. It was then taken to the same artist, and another *negative* was photographed. Dr. Armsby desired possession of the first negative, but was unable to purchase it from the artist. He then requested that no copies, or prints, from the original negative should be sold, but copies from the second negative only. The first photograph shows the real appearance of the bladder when fresh; the second exhibits very well the effect of Goadby's solution, or other antiseptic, in *altering* its appearance, especially when supplemented by the tactile ingenuity of dexterous manipulators. Had not the writer seen “a whistle made of a pig's tail,” he would hardly have supposed the bladder from which the first pictures were photographed to be so plastic and tractile that the second, by any cunning, could claim to represent it. The two plates which are reliable are numbered 37, 38; the other two, 37*, 38*. The ill-starred photographs represent behind the vesical triangle (*trigone vesicale*) “a deep circular depression or sac.” This is, simply, the pouch, called the *lower fundus*, or *bas fond* of the bladder (the well-known receptacle of urinary calculi), which, by means of hooks and pins and guys, is tortured into something quite “deep” and abnormal in appearance. The muscles of the ureters (a structure “very distinctly developed in the hypertrophied condition that usually attends diseases of the bladder”—see “Morton's Anatomy,” p. 340) are moulded until they are transformed into what is called a “bar-like ridge.” In front of this is the third lobe of the prostate, in the original photographs represented as a rather thick membrane stretched across the neck of the bladder; in the photographs, inspired by an after-thought, it is tricked into “a firm, elevated” transverse ridge, “*half* an inch in thickness!” (See backs of photographs.) Reference is made on the backs of the photographs to Gross; but, in his “Pathological Anatomy,” he speaks of transverse ridges of “mucous membrane” sometimes “three or four lines in thickness,” and not of fabrications, “half an inch in thickness and an inch in depth!” By the photographs, the walls of the bladder are also made to look thicker. The ingenuity of the writer is severely taxed to explain this transaction with the photographs so as to save the professor from humiliation; and, not feeling

himself competent to do so, he leaves the facts to speak for themselves.

Under the head of "*Remarks*," it is said: "It was reported that he" (Dr. March) "had malignant tumor or cancer in the bowels, and could not recover. The only foundation for such a report was that some gentlemen, of high character and experience, were inclined to believe that the tumor, which was distinctly felt, was not simply a diseased and enlarged bladder, but had connected with it, and external to it, another growth, probably of a malignant character. This opinion was not shared by the attending physicians. Nothing in the *post mortem* was found to confirm its correctness." This statement has been severely censured as disingenuous, and as inspired neither by a nice sense of honor, nor of justice in the author. The real truth is that, on or about the 9th day of June, Dr. March felt himself to be in extreme danger, and wished to see, perhaps for the last time, and talk with some of his medical friends and colleagues. Drs. Thomas Hun, J. V. P. Quackenbush, S. O. Vanderpoel, and J. S. Mosher, visited him. Before they saw him, Dr. Armsby stated that a catheter had been passed twice, but that the bladder contained no urine. Dr. Hun remarked that the tumor, which was said to have developed so rapidly, must then be cancerous. When come into the presence of the sufferer, at his request, Dr. Hun placed his hand on "the tumor." He saw no reason to alter his opinion, previously formed, for, like all present, he believed the bladder to be empty, as Dr. Armsby had stated. These gentlemen visited Dr. March, at his request, only as friends, and in no sense as physicians. They assumed no responsibility in the case, and it is most unfair and unworthy conduct to fling an insinuation against their perspicacity and discernment for a mere conjecture, based on incorrect information and insufficient data. One of these gentlemen states to the writer that Dr. Armsby adopted the opinion that "the tumor" was a malignant growth, and acknowledged so to him a day or two before the patient's death. A prominent surgeon from another town, who was by chance with Dr. March at his dissolution, assures the writer that, at breakfast, Dr. Armsby spoke of the case as one of cancerous disease. Far be it from the writer to

accuse Dr. Armsby of falsehood when he, as one of the signers of the paper, says, “this opinion was not shared by the attending physicians!” But these discrepancies belong to the history of this remarkable case, and, having accepted the challenge to criticise, which publication always implies, the writer cannot well repress them, and treat the subject according to its deserts.

Had the opinion, casually expressed by one of the friends of Dr. March, as stated above, been formed after deliberate examination, it would not have been so unexampled as to justify the pettiness of allusion to it in order to slur it, for, in the *Bibliothèque Médicale*, it is reported that two leaders of science in France mistook distention of the bladder for malignant disease. Curiously enough, too, this diagnosis is the only one that would seem to vindicate the treatment pursued in this case, since, if the diagnosis was “distended and thickened bladder,” the medical attendants followed a course which was not merely erroneous, but abominable.

This paper has been termed remarkable, and, with the light now let in upon it, there would seem to be but one judgment of it possible. To allow it to pass unchallenged and uncontradicted seemed wrong to the writer, and to savor of concession and concurrence. Both from its own internal evidence, and from evidence elsewhere obtained, it appeared to be little better than a scientific fraud. Its fabrication is artful, specious, and sophistical, and, as a contribution to history, it appeared questionable, for it purports to contain facts that are differently stated by other and truthful men, both prior and subsequent to its appearance, and, in important matters, it suppresses facts altogether. If the examiner is wrong, the good metal will be all the brighter for its rubbing; if right, the counterfeit ought to be nailed to the counter. Two of the signers of this paper are Professors in the Albany Medical College—one is now in the great vacancy left by Alden March—and every student has been provided with a copy of the document. The position of a professor has been degraded by this attempt to give consideration and authority to such fallacious theories and detestable methods. Had the paper originated with a beginner in practice, its essence and its manner should

have caused regret, perhaps derision, but it would, doubtless, not have received the equivocal compliment of formal reprehension; but of teachers we demand teachings characterized by proficiency, clearness, and honesty of purpose. These young men, the medical students, read that this most singular treatment is "*usual in such cases!*" Instead of acknowledging the terrible mistake with manliness and humility, whose discovery, at the *post-mortem* investigation, caused a shudder of mortification and grief in the breasts of lookers-on, an attempt is made to justify it, and the scorn of the profession is provoked by crafty efforts to confuse and obscure the sad affair amid irrelevancies, obliquities, *non-sequiturs*, and artful perversions. The intelligence, sagacity, and skill of the whole profession are impugned by calling this treatment "*usual*," in order to seek protection in the subterfuge from the condemnation which the paper shows is already keenly felt.

"Usual in such cases!" Never! It is negative and inefficient for good, positive and potent for harm. An ailment, simple and tractable at first, if properly managed, is, through inaptness, unskilfulness, or timidity, allowed to become uncontrollable. *This* "usual" treatment? Is this the teaching in the Albany Medical College? Are the young men there instructed to leave a bladder distended with urine to the impotent efforts of unaided Nature, and to treat uræmic poisoning with opium? Does Dr. Armsby, who has now obtained Dr. March's place, so teach? Fortunately, there are professors there who scout such practice. Everywhere the profession is heard repelling and repudiating the allegation that this "is usual treatment in such cases," and from the grave of the old surgeon who has fallen arises a solemn warning against its repetition.

APPENDIX.

LAST ILLNESS OF DR. ALDEN MARCH.

THE following account of the case of the late Dr. March has been prepared under the direction of the physicians who had the principal charge of the patient, for the information of the many friends and acquaintances of that distinguished surgeon and professor. The information contained in the preliminary remarks was derived from a gentleman nearly related to the patient, and for many years his most intimate associate.

Dr. March had suffered for many years from irritation of the bladder, which fact was known to his intimate friends. Any unusual mental excitement, such as the performance of a hazardous surgical operation, was sure to increase this irritation. It sometimes occasioned him considerable annoyance.

More than fifteen years ago, while travelling with his family in Switzerland, he met with an accident, while descending Mont Righi; slipping on the rock and striking the lower part of the abdomen on a projecting point. The injury was severe, and confined him to his room in Lucerne several days with local symptoms. During the rest of his journey, and long after his return, he used to refer to this accident as an injury of the bladder, and complained of soreness in the lower part of the abdomen. More than ten years ago, when speaking of the case of Dr. Tully, his former partner, who died of disease of the bladder and prostate, he remarked that he had the same disease, and that it was increasing every year.

Before this time he provided himself with a urinal; and, when travelling, he kept it at hand night and day. Some time later, he met with another accident in running up the steps of a railroad depot. Tripping on a step, he struck heavily on the edge of the platform. He suffered very much at the time, and was exceedingly alarmed. Speaking of the accident, he said, "I thought that I had killed myself, that I had ruptured my bladder." He never recovered entirely from this injury. He was in the habit

for a long time of placing his hand over the lower part of the abdomen, as if in the act of examining or percussing.

This habit has been noticed by his friends, and been spoken of by his pupils since his death, as having been noticed also in the lecture-room. A few weeks before his death he made the journey to New Orleans to attend the meeting of the American Medical Association. On his way he suffered from the extreme heat and fatigue, but rested only a few hours at Charleston and Atlanta. He wrote from Charleston, "I am almost overcome with the heat." From New Orleans he wrote, "I have enjoyed the meeting very much, and seeing so many of my old friends, perhaps for the last time." Alas! so it turned out. It is not a little remarkable that no fewer than four ex-presidents of the American Medical Association *died* within a few weeks of each other—Moultry, Eve, A. H. Stevens, and Alden March.

On his way home, Dr. March travelled night and day continually, without appearing to suffer from the journey. He resumed his professional business with his usual alacrity, attended to distant calls, and continued his weekly clinique at the hospital. After a very fatiguing ride in the country, exposed to rain and cold, he went to his bed quite ill with fever, restlessness, pain over the region of the bladder, great thirst, and constant desire to void urine. He passed a restless night. On going to bed he took a pill of five grains of calomel and one of opium, which acted freely on the bowels in the morning, and seemed to afford relief. He kept quiet, took diluents and small doses of opium during the day. Next night, at the suggestion of one of his colleagues, he had a warm bath, followed by Dover's powder, which afforded great relief, and procured him a tolerably comfortable night's rest. In a few days he was out again and attending to business, but his countenance continued somewhat sallow, and the expression anxious. A few days after, he gave his last clinique at the hospital, and performed a tedious operation. It was the removal of a tumor which lay over and involved the carotid artery and internal jugular vein. He was greatly fatigued, and went home quite unwell. From this time his health was broken down, and his declining strength quite apparent. But his strong *will* would not allow him to take rest. He kept going about, but could not attend much to out-door patients.

He made it a practice, never, if it could be avoided, to be absent from his place in church on the Sabbath. On the 6th of June he was, as usual, in his pew, and remained during the service, but in great distress from his old trouble. At the close he rushed from his seat to the closet of the lecture-room and relieved himself by partially emptying the bladder, after a painful effort. He remarked to a friend, "I never suffered so much pain in my life; I could not have borne it another minute." After this it was thought best, in order to insure greater quietude, and to avoid the annoyance of professional consultations, to have him removed to the residence of his son-in-law, David I. Boyd, Esq., in Park Place. There he remained until his sufferings were ended by his death. There he was surrounded by sympathizing friends, tender nurses, and experienced and attentive medi-

cal advisers. His regular medical attendants were his colleagues, Professors James H. Armsby and McNaughton, and Dr. James P. Boyd; but he was occasionally visited by the leading physicians and surgeons of Albany, and some from the surrounding districts.

There was not at any time much difference of opinion regarding the nature of the case or the proper treatment to be pursued. It is true that some erroneous statements appeared in the newspapers in regard to the nature of the disease, but these were not authorized by those who had charge of the case. After Dr. March became confined to his room, he had moderate fever in the daytime, but more at night. There was excessive thirst, and he drank a large quantity of ice-water. His nights were restless and his sleep unrefreshing. His appetite was better for the first week than could have been expected, and he was ready to take as much food as his medical attendants were willing to allow him. His most troublesome symptom was pain about the neck of the bladder, and an irresistible desire to void urine every fifteen or twenty minutes.

He seldom passed more than an ounce or two at a time, but passing it so often, the quantity voided daily, for the first week or ten days, amounted to between two and three quarts. Attention was early called to a tumor occupying the lower part of the abdomen, and distinctly traceable from the *pubes* nearly to the *umbilicus*, but much better defined on the left side of the mesial line than on the right side. On the left of the linea alba it was a soft, solid mass, fixed in its position. On the right of that line, the tumor was not as well defined, or traceable to the pubes, but yielded a faint sound on percussion. The tumor was regarded as a distended and thickened bladder, bound to the left side by adhesions to the omentum and abdominal parietes.

The injuries received in that region rendered such adhesions more than probable. The patient did not seem to recollect how long the tumor had been felt by him, but he seemed to feel certain that his bladder was somehow displaced, and that he had for years been afflicted with disease of the prostate gland.

The introduction of the catheter was early suggested, but as the parts were very tender, and he had himself repeatedly tried to introduce it without success, it was delayed at his own request. There seemed no urgent necessity for it, as he was passing daily from two to three quarts of apparently healthy urine, and means were being resorted to in the mean time to allay irritation, so as to facilitate the passage of an instrument, if necessary. The first attempt to introduce a catheter was made about a fortnight before he died. The instrument passed without difficulty its whole length, without entering the bladder; blood coagulated in the catheter, and no urine passed through it, but some passed external to it and followed its withdrawal. As the operation caused distress and exhaustion, it was not persisted in. It was chiefly resorted to as a means of exploration, and revealed the great elongation of the prostatic portion of the urethra, as well as the great enlargement and induration of the prostate gland. No

other attempt was made until a few days before his death. Whenever it was proposed, he would say, "I pass quite water enough, why give me unnecessary pain?"

At the second attempt, he was put under the influence of chloroform, and a longer instrument than usual was employed. It was passed readily the whole length of an ordinary catheter until it met a firm, resisting body, and seemed to fall into a *cul-de-sac* in which its point was fixed. It was repeatedly withdrawn, and its point carried along the anterior wall of the prostatic urethra; but the handle of the catheter could not be depressed, on account of the great enlargement and induration of the prostate gland.

Several instruments, metallic and flexible, were tried, but with no better success. As the operation was exhaustive, and not likely to succeed at last, it was deemed best not to persevere.

Up to this time he passed his urine voluntarily and in sufficient quantity daily to prevent, it was supposed, uræmic poisoning from its retention in the bladder. He was occasionally delirious, and exhibited nervous symptoms and disturbance of the stomach and bowels; but these were attributed to the free use of anodynes, necessarily administered to relieve his distress. There was no involuntary dribbling of urine at any time, or other evidence of over-distention of the bladder. He seemed possessed from the first with the idea that he had a great accumulation of fæces in the *rectum*, and *that* after very free evacuations from the bowels, from repeated doses of castor-oil.

The sensation, doubtless, was caused by the enlargement and induration of the prostate, and the pressure of the bladder on the *rectum*. Uræmic symptoms became more marked in the last two days. Hiccough, delirium, and drowsiness, became more decided, his urine passed without effort, and the last day, without apparent consciousness, into a urinal, but in less quantity than before. Almost to the last hour he could be roused to consciousness. His spirit quietly departed on the morning of June 17th, in the seventy-fourth year of his age.

State of the Urine.—As Dr. March had so long suffered from disturbance of the urinary organs, attention was at once drawn to the quantity and quality of his urine. He informed his medical attendants that, for several months, he had voided from three to six quarts daily. The urine was clear and free from any sediment, and of the color of pale sherry.

There were some suspicions of diabetes, but, when tested by Prof. Mosher, it was found to contain no sugar, and its specific gravity was only 1.005; it contained no albumen. Later in the disease the gravity was 1.010, and urea in a given quantity less than the average, but, as he passed more urine than the average daily, the whole quantity of urea voided might be equal to the average. The urine had a slightly acid reaction.

Treatment.—The treatment was such as is usually pursued in such cases—warm baths, fomentations, diluent drinks, anodyne injections, anodyne suppositories introduced into the rectum, etc. Every attention requi-

site was paid to regimen and nursing, and every urgent symptom relieved as speedily as possible.

Remarks.—It is usual when a citizen, occupying a distinguished position in society, is known to be dangerously ill, that various reports about the case get into circulation. Dr. March's case was no exception. It was reported that he had a malignant tumor or cancer in the bowels, and could not recover. The only foundation for such a report was, that some gentlemen of high character and experience were inclined to believe that the tumor, which was distinctly felt, was not simply a diseased and enlarged bladder, but had connected with it, and external to it, another growth, probably of a malignant character. This opinion was not shared by the attending physicians. Nothing in the *post-mortem* examination was found to confirm its correctness.

The bladder was found enlarged, and much changed in its structure.

The prostate gland was very much enlarged in every direction, and indurated, but nothing indicated that it was affected by a cancerous disease. There was no appearance of recent inflammation in the *interior* of the bladder, but the outside exhibited evidence of former inflammations, more especially on the left side of the linea alba, in the shape of adhesions to the pubes, the omentum, and abdominal parietes, accounting for the position and character of the tumor felt in that region during life. Even after the bladder was partly exposed to sight, by the division of the abdominal parietes, the distended bladder, with its adhesions, conveyed to the hand of the examiner the feeling as if a sponge or some such substance occupied the interior of the bladder instead of urine. When the urine was drawn off, the coats of the bladder, especially on the right side of the mesial line, were found less thickened than might have been expected; but the bladder, owing to its adhesions, did not collapse. The kidneys also exhibited evidence of disease and former inflammation. Besides adhesions, both kidneys had serous cysts on their outer surface; the cysts on the left side were of larger size than those on the right.

In the tubular part there was some evidence of disease; the ureters were not enlarged or distended with urine. The bladder has been preserved, and photographs of it have been taken, and a minute description of the morbid appearances given by Drs. Armsby and Haskins, by whom the examination was made in the presence of many physicians. The question may be asked, indeed has been already asked, "Why, as the catheter could not be introduced, was not the bladder tapped? Might not such an operation have prevented uræmia, or have prolonged life, if it did not save it?" These questions would probably be differently answered by different persons.

Uræmic symptoms were not so urgent as to warrant puncturing the bladder, even if the patient would consent. The physicians in charge thought such an operation would not only be useless, but injurious. A perforation through the rectum would be likely to be followed by urinary

infiltration, and above the pubes the same result would be probable. It is not probable that uræmia is often caused by mere retention of urine in the bladder, even when a very small quantity of urine is voided in twenty-four hours. It is very probable that Dr. March had not for months entirely emptied the bladder at any time, yet his general health seemed good, and his body well nourished. It is true that, in the examination that was made of the urine, the proportion of urea contained in it was below the average; but was that caused by the absorption of that constituent after it got into the bladder? Is it not more probable that it was *retained* in the blood by the diseased action of the kidney, as in ischuria renalis? Such, at all events, was the view taken by those in charge of this case, and made them disinclined to resort to an operation of such doubtful utility.

JAMES McNAUGHTON,
JAMES P. BOYD,
JAMES H. ARMSBY.

WITH COMPLIMENTS OF THE AUTHOR.

LAST ILLNESS OF DR. ALDEN MARCH.

A CRITICISM

ON THE

MANAGEMENT OF HIS CASE.

NEW YORK:
D. APPLETON AND COMPANY,
90, 92 & 94 GRAND STREET.
1870.

THE NEW YORK MEDICAL JOURNAL,

EDITED BY

E. S. DUNSTER, M. D.,

Professor of Obstetrics and Diseases of Women and Children in the University of Vermont,

Is published monthly; each number contains 112 pages, making two large octavo volumes yearly, of nearly 700 pages each.

THE VOLUMES BEGIN IN APRIL AND OCTOBER.

Terms, \$4 per annum. Specimen numbers sent by mail on receipt of 25c.

Since its Enlargement, the New York Medical Journal contains more Reading Matter than any Monthly Medical Journal published in this Country.

"One of the best Medical and Surgical Journals published on the American Continent."
—*London Medical Times and Gazette.*

"The editor and the contributors rank among our most distinguished medical men, and each number contains matter which does honor to American medical literature."—*Boston Journal of Chemistry.*

"Full of valuable original papers abounding in scientific ability."—*Chicago Medical Times.*

"Taking it all through, its beauty of paper and print, its large-sized type, the high character of its contributors, its general usefulness, we know no other periodical that we would rather present as a specimen of American skill and intelligence than the New York Medical Journal."—*Franklin Repository.*

Any person sending us NEW Subscriptions for either the Medical or Psychological Journal, may retain 25 per cent. of the money for each subscription.

The following commutation rates are also offered:

N. Y. MEDICAL JOURNAL and Appletons' New Weekly JOURNAL.....	\$7.00
PSYCHOLOGICAL " " " "	8.00
N. Y. MEDICAL JOURNAL and PSYCHOLOGICAL JOURNAL.....	8.00

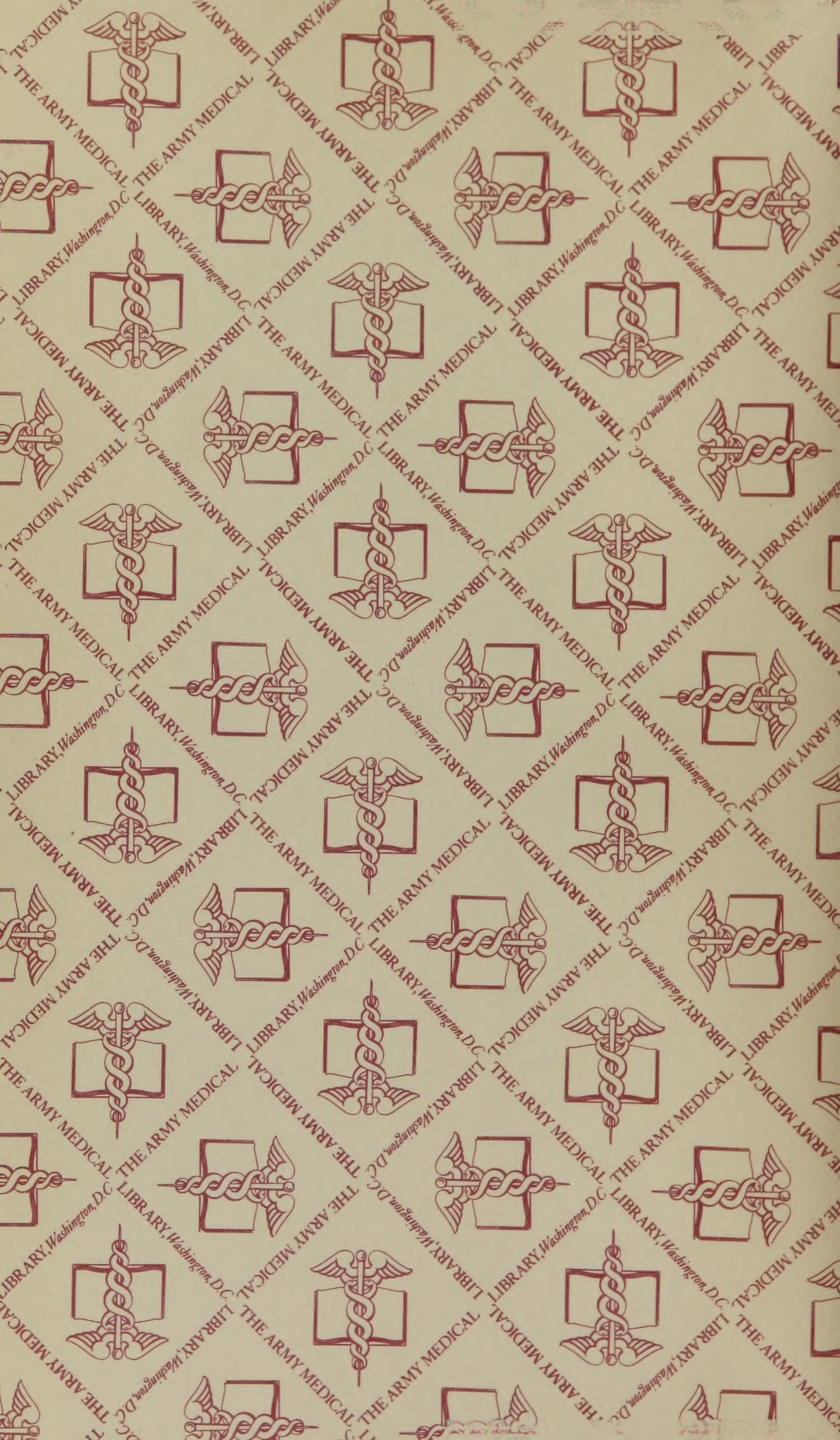
Payment in all cases must be in advance.

These JOURNALS have obtained a prominent position among the medical periodical literature of this country, and no effort will be spared on the part of the Publishers to maintain the high literary and scientific character already acquired.

Subscriptions should be addressed to the Publishers,

D. APPLETON & CO.,

90, 92 & 94 GRAND ST., NEW YORK.



NATIONAL LIBRARY OF MEDICINE



NLM 05229368 3